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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/566,213

01/27/2006

Takeshi Sakamoto

126791

1017

25944 7590 10/09/2008

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EXAMINER

HARRIS, GARY D

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

10/09/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/566,213	<b>Applicant(s)</b> SAKAMOTO ET AL.	
	<b>Examiner</b> GARY D. HARRIS	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments filed on 10/6/2008 pages 4-7 have been fully considered but they are not persuasive. Applicant argues that the three protective layers have different crystal sizes and are in the polycrystalline state to minimize pin holes and improve corrosion resistance of a rare earth magnetic body. Applicant has not defined the rare earth body or the polycrystalline material used as the protective layer over the cited references. Tagaya '756 teaches rare earth magnets and uses multiple protective layers over the rare earth magnet (Col. 3, Line 25-49). Which include a Ni based underlayers (similar to applicant), and electroless plated Cu layers, additional Cu layers, Ni-P layers, electroless Ni layers, and an assortment of top layer coatings (DLC, polymer, etc. see (Col. 5, Line 8-20)). Examiner interprets that the electroless Cu layer would necessarily have a larger grain size than the e-Ni-alloy layer (see abstract) depending on amperage, time in bath and processing conditions.

For convenience the rejection is substantially repeated with new claims rejected:

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tagaya US 5,314,756 and further in view of Nee et al. US 4,869,971.

As to Claim 1 & 5, Tagaya '756 teaches rare earth magnets and the use of multiple protective films over the rare earth magnet (Col. 3, Line 25-49). Tagaya '756 recognizes the problems with pin holes associated with the protective layers as he discloses minimizes surface roughness which necessarily could be interpreted as smaller grains but, is silent in regards to adjusting grain size to reduce the number of pinholes (Col. 3, Line 25-49). However, Nee et al. '971 discloses a multilayered nickel alloy and adjusting the grain size between layers (Col. 3, Line 34-47) in order to improve mechanical properties. It would have been obvious to one skilled in the art to adjust the grain sizes of the Tagaya '756 rare earth magnet protective layers in order to improve mechanical properties as taught by Nee et al. '971.

As to Claim 2, Tagaya '756 discloses a first protective layer of 0.5 microns (Col. 7, Line 50-57).

As to Claim 3, Tagaya '756 discloses growing the protective film in a columnar direction (Col. 9, Line 11-45).

As to Claim 4, Tagaya '756 discloses the advantages of using nickel plating on rare earth magnets (Col. 1, Line 33-44).

As to Claim 6, the Tagaya '756 film structure would necessarily have an inner most layer and outermost layer having smaller grains as he discloses these layers being similar materials (as in the case of electroless-plated Cu layer, or an e-Ni layer) with similar processes of forming which would necessarily produce similar grain sizes (see abstract).

As to Claim 7, Tagaya '756 discloses a rare earth magnet (Col. 1, Line 14-26), an electroplated copper layer (Col. 4, Line 9-26), followed by a protective layer (Col. 4, Line 56-58) and may have an additional coating that would necessarily meet limitations of claim (grain size) (Col. 5, Line 7-20).

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 1794

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GARY D. HARRIS whose telephone number is (571)272-6508. The examiner can normally be reached on 8AM - 5PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith D. Hendricks can be reached on 571-272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gary D. Harris/  
Examiner, Art Unit 1794

/Holly Rickman/  
Primary Examiner, Art Unit 1794

**Search Notes (continued)**

Application/Control No.

10/566,213

Examiner

GARY D. HARRIS

Applicant(s)/Patent under  
Reexamination

SAKAMOTO ET AL.

Art Unit

1794

**SEARCHED**

Class	Subclass	Date	Examiner

**INTERFERENCE SEARCHED**

Class	Subclass	Date	Examiner

**SEARCH NOTES  
(INCLUDING SEARCH STRATEGY)**

	DATE	EXMR
Updated Search	10/5/2008	GH